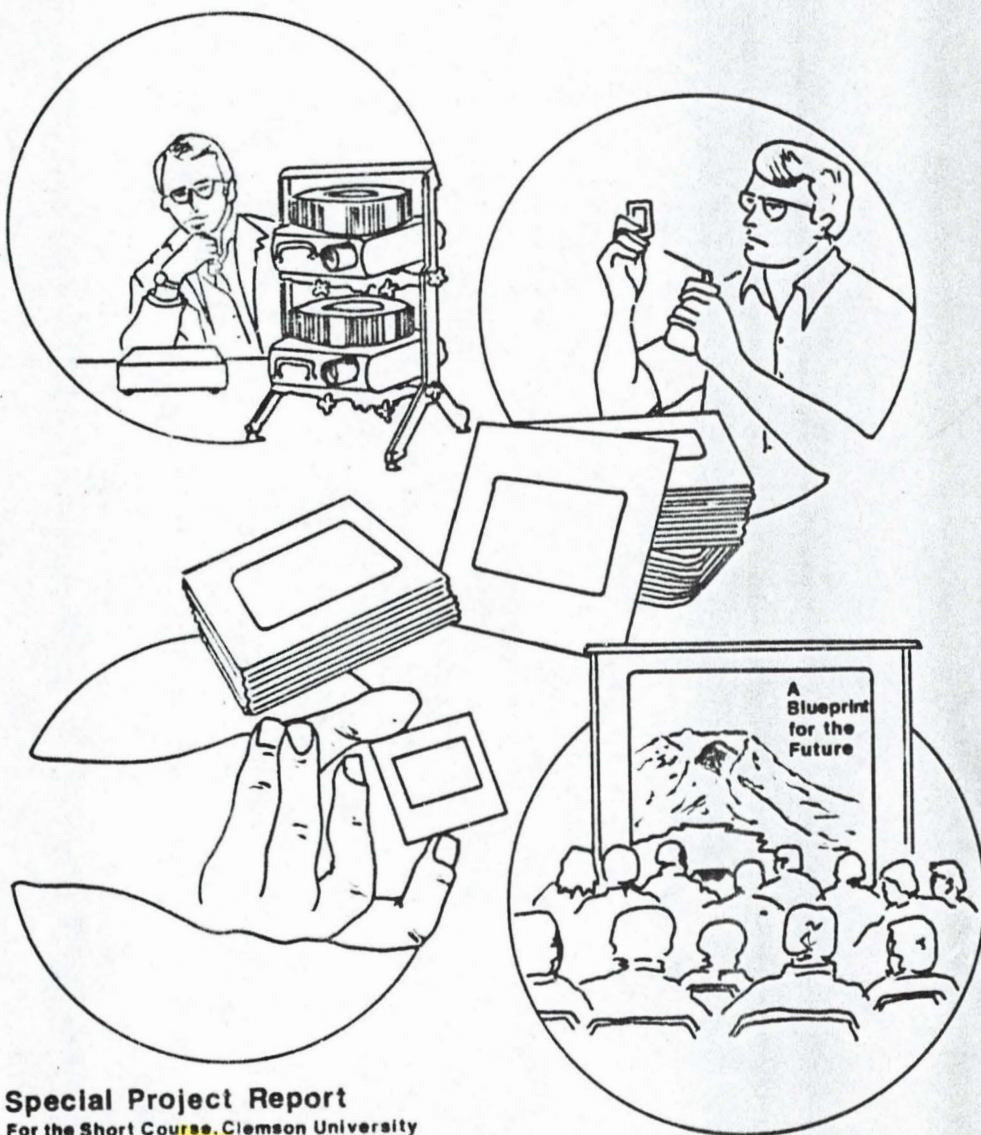


Communicating Management Objectives With Audiovisual

"A Blueprint For The Future"
A Special Program for the Mount St. Helens National Volcanic Monument Plan



Special Project Report
For the Short Course, Clemson University

By David H. Seesholtz

USDA Forest Service
Gifford Pinchot National Forest

COMMUNICATING MANAGEMENT OBJECTIVES

WITH AUDIOVISUALS

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Professional Development Program for

Outdoor Recreation Management

Clemson University

Clemson, South Carolina

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April 29, 1986

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This paper was prepared as a student project in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management program at Clemson University. It in no way reflects USDA Forest Service policy, nor are the opinions expressed those of anyone other than the author.

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Title: COMMUNICATING MANAGEMENT OBJECTIVES WITH AUDIOVISUALS

Abstract: The primary objective of this field project is to develop a high quality audiovisual program on the recently approved Comprehensive Management Plan for the Mount St. Helens National Volcanic Monument that will result in a clear understanding of the need for the key management direction and developments proposed. The audiences should be persuaded that implementing this plan is important if the public is to achieve the full potential of this unique area. This improved understanding could result in the project receiving the proper priority for funding.

This paper identifies the specific steps that were used to develop the program, and makes recommendations for others who decide to develop an audiovisual program.

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EXECUTIVE SUMMARY

COMMUNICATING MANAGEMENT OBJECTIVES WITH AUDIOVISUALS

Mount St. Helens, "A BLUEPRINT FOR THE FUTURE"

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SUMMARY: The primary objective of this field project was to develop a high-quality audiovisual program on the recently approved Comprehensive Management Plan for the Mount St. Helens National Volcanic Monument. Implementing this plan requires over \$100 million to replace destroyed highways and provide facilities to handle anticipated visitors. Increasing concern by the public about the Federal deficit makes it increasingly important that the public understand the opportunities that will become available with full implementation. This understanding will translate into the plan maintaining high priority with Congress for funding during the proposed development period.

Research was conducted on the Comprehensive Management Plan, U.S. Geological Survey publications on Mount St. Helens, and manuals on developing audiovisual programs. Since this audiovisual program will probably be the only one necessary to communicate the plan to the public, this report centers on the steps used to produce the audiovisual program.

On the basis of the several showings that have been made since the program was completed, the two projectors lapse dissolve format has proven to be an effective method for communicating management objectives. The constantly illuminated screen, music, professional narration, and special visual effects draws the audience deeper into the program than a lecture or simple slide projector program, resulting in a higher degree of understanding and retention of the message. The following recommendations are made for others who decide to use audiovisual techniques to present management objectives.

1. Make a written plan, such as a critical path chart, that includes scheduled opportunities for review by your supervisor or client. Scheduling these reviews early in the production process will increase the probability of success.

2. Analyze your intended audience and plan the program based on their background and knowledge of the subject.
3. Clearly define the objectives of the program. These objectives will provide criteria for evaluating the completed program.
4. Write a treatment that describes, in a concise way, how the show will unfold visually, verbally, and musically, and obtain your supervisor's or client's approval before moving ahead with the production.
5. Plan the visuals, script, and programming techniques together. Allow time for the script to be reviewed by the appropriate experts and your supervisor. Plan to rewrite the script several times.
6. Rent a sound studio and editor to ensure a high quality sound track. Hire a professional narrator who can breathe life into the script.
7. Use interviews with experts and eyewitnesses to add creditability to the information. Plan to be present and closely supervise all interviews.

8. A high quality program could be requested for showing at locations or to audiences you didn't anticipate such as on television, therefore, photographs and music should be checked for copyrights. The necessary rights should be acquired, or the music selection or photograph should not be used.

This report includes the treatment, outline, and script for the program, "A Blueprint for the Future," as an example for others who decide to produce similar audiovisual programs.

INTRODUCTION

On October 18, 1985, a Final Environmental Impact Statement was approved for a Comprehensive Management Plan for the new Mount St. Helens National Volcanic Monument. This 450-page document details the management and developments needed to allow research and recreation to occur in harmony with the natural features and processes of the Monument.

Implementing this comprehensive management plan is estimated to require \$40 million to construct needed recreation facilities within the Gifford Pinchot National Forest, and an additional \$64 million for the State of Washington to replace 25 miles of state highway destroyed by the volcano. This development is scheduled over the next ten years, and the actual timing of individual phases is heavily influenced by volcanic activity, resource recovery, and the completion of other phases such as the state highway.

Mount St. Helens is a world class, natural feature and, at present, Congress has been very responsive to the financial needs to implement the plan. Unfortunately, the entire plan cannot be implemented in a few years because of the difficulty in restoring the state highway that is needed to provide access to the west side of the Monument. The increasing public concern over the growing federal deficit and the time delay before all the developments can be completed will increase the difficulty in acquiring the total funding.

If the public could understand the fantastic natural processes of the Monument and the exciting opportunities for recreation and research, they would be motivated to take actions that would result in the proper priority for funding.

Research has shown that the most powerful learning channel is the sense of sight, and that 75 to 90 percent of what we learn comes through what we see.^{1/} Research has also discovered that combining the media of sight and sound (audiovisual) will result in more being learned than from either medium used alone. Therefore, an audiovisual program was selected as the media to develop public understanding and support of the plan.

This field project documents the steps used to plan and produce an audiovisual program to communicate management objectives (in this case, the plan) to the public.

PLANNING

Review of four separate publications on producing audiovisual programs resulted in the identification of the following nine basic steps.

- 1) Defining the audience
- 2) Setting objectives
- 3) Determining the presentation requirements
- 4) Researching the subject
- 5) Developing the treatment

^{1/} Wollensack, 3M Company, 1980, "Cassette/Slide Program Production"

- 6) Writing the script
- 7) Preparing the visuals
- 8) Recording the sound
- 9) Programming the show

Each program is different and some of these steps will be different, or at least occur in a different order. For instance, some producers prefer to prepare a storyboard to help plan the relationship of the visuals and script. In the case of this program, the visuals were described in word-form as a part of the script and the detail of a storyboard was not necessary.

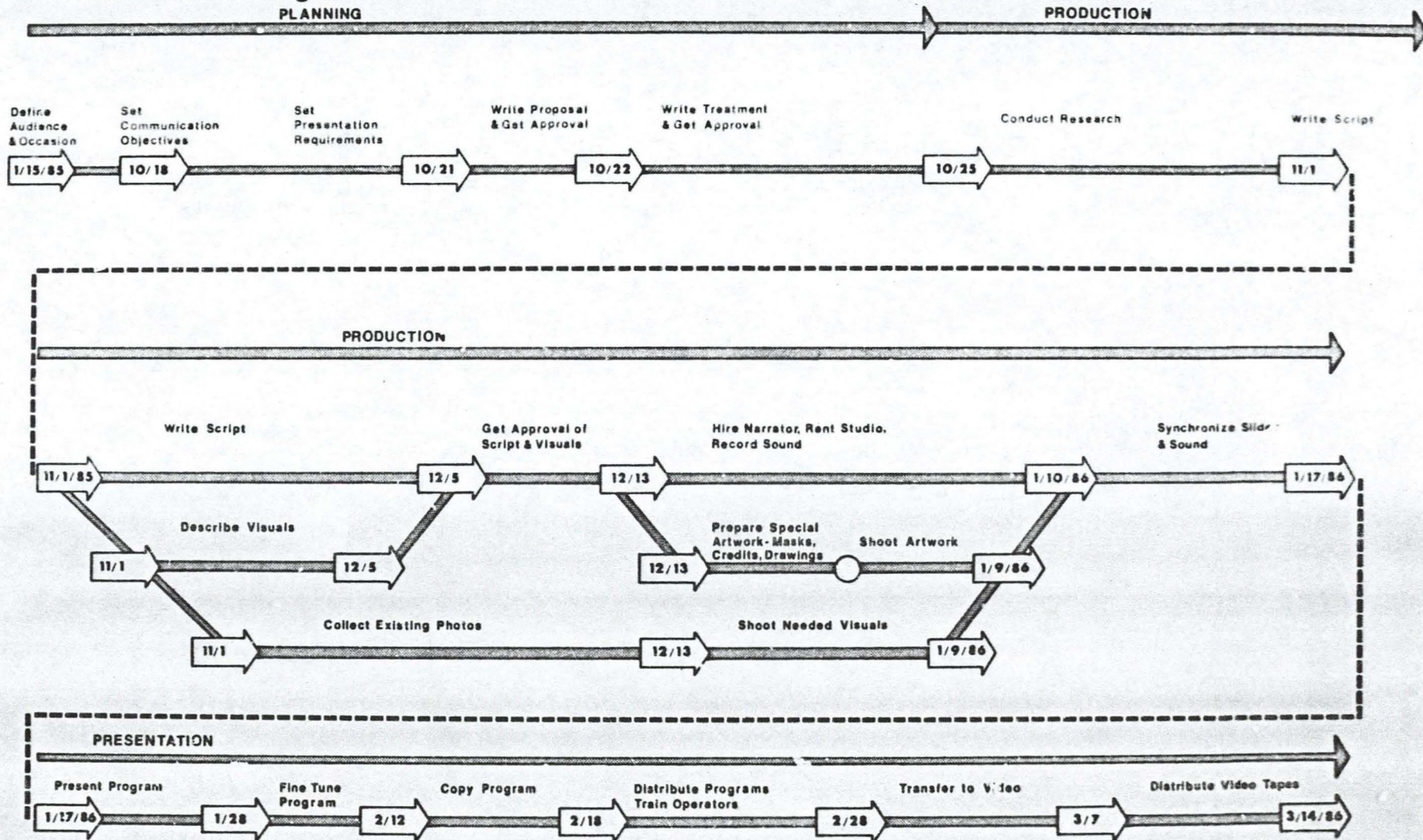
The critical path chart is the author's personal preference for planning large projects. There is no "right" way to plan, but with a project as complex as producing an audiovisual program, some kind of plan will increase the probability of a successful program. The critical path chart for this program is shown on the next page. One important feature of any planning process is the scheduling of opportunities for review. Your client (in this case, the author's supervisor) should review and approve the planning and production along the way. The following steps are recommended for review and approval:

- a. After the original proposal is conceived.
- b. After the treatment is written.
- c. After the script is written.

This is very important, as it will prevent possible embarrassment and extensive rework after the program is shown for the first time.

Audiovisual Program Critical Path

Mount St. Helens Plan Presentation



AUDIENCE

This program will be shown to audiences with a wide variety of backgrounds.

The program is primarily intended for showing to clubs and organizations that have special interest in the Monument. These groups will usually be located in the four County area around Mount St. Helens, and consist of adults over age 30 who have special recreation interests such as: hiking, horseback riding, mountain climbing, hunting, fishing, etc. A high percentage of each group will have some prior knowledge of the area. The group size will usually range from 20 to 100, and the program will often be shown in conjunction with a dinner.

The program will also be shown to political groups such as County Commissioners, the State Task Force on Tourism, and State and Federal Congressmen. These groups will usually be less than 20 and will often be long distances from the forest.

The program is secondarily intended for showing to general audiences at the Mount St. Helens Visitor Center as an alternative to the 16mm movie, "This Place in Time." These audiences consist of all age levels with little knowledge on the subject. The audience size will range from 150 to 200.

Special requests for displaying the proposed management plan are anticipated for meetings of professionals in recreation, research, and land management planning.

COMMUNICATION OBJECTIVES

The primary objective of this program is to create a widespread public awareness of the unique opportunities for recreation and research at Mount St. Helens that will result when the new Comprehensive Management Plan is implemented. This increased awareness will result in public support for the funding necessary for implementing the plan.

The following information will have to be clearly communicated:

- A description of the events that created this unique volcanic landscape.
- How the plan brings the visitors and this landscape together.
- The planned actions are in harmony with nature.
- Although this is an active volcano, it is safe to visit.

These objectives will provide a standard for measuring the effectiveness of the final program. They will help to determine where the program went right or wrong, and where revision is necessary to improve the final project.

PRESENTATION REQUIREMENTS

After determining the communication objectives and audiences, the eventual presentation was defined. This was done as a team effort. First, all of the desired presentation requirements were listed. Next, these items were divided into "musts" and "wants". A "must" is an item that, if not met, will cause failure of the program as originally conceived. For example, if the program is to be shown to large audiences, the graphics, film size, and format must be designed to be clearly seen from the back row.

A "want", on the other hand, is an item that can be included in the presentation, but could be sacrificed without compromising the primary communication objectives. For example, stereophonic sound would have been nice to have, but was not necessary to meet the communication objective. Finally, both the "must" and "want" items were prioritized and the lower priority items were the first to be given up because of budget and time limitations.

These "must" and "wants" are shown in Table No. 1.

Table No. 1 Presentation Requirements

<u>Musts</u>	<u>Wants</u>
1. Images large enough for audiences of 200	1. Music
2. Less than 25 minutes	2. Interviews
3. Costs less than \$5,000	3. Sound effects
4. Usable with existing audiovisual equipment	4. Portable, easy to show version
5. Lapse dissolve	5. Multiple images
6. Canned sound track	6. Transfer to 16mm movie
7. Professional narrator	7. Stereo sound

RESEARCH

The information used to prepare the script for this program came from the following three sources:

1. Printed Materials This category of information included several Environmental Impact Statements on the Mount St. Helens area, U.S. Geological Survey publications, public laws, minutes of the Scientific Advisory Board Meetings, scripts from other slide shows, design guidelines, and letters from the public. A detailed description of these sources of information is presented in the list of references in the appendix.

As this information was reviewed, answers were sought for the six basic questions for preparing journalism: who, what, when, where, why, and how. This information provided a background on the subject and led to knowledgeable people to interview.

2. Interviews Experts and eyewitnesses were interviewed to expand and bring to life the information collected during the research of the printed material. The testimony of an expert or eyewitness adds credibility to information presented. Testimony heard directly from an expert is the most convincing form of support possible. For this reason, several of the interviews were recorded and used in the program.

3. Personal Investigations Visiting the areas and observing people and operations was invaluable for developing a feeling for the area and an understanding of the information collected. During these visits, ideas for the visual portion of the program were developed and, in some instances, photographs were taken that were used in the final program.

TREATMENT

Begin by describing how you plan for the ideas and visuals of the presentation to flow together. This written description is called a "treatment" and displays the major sequences of the presentation. Such treatment allows those for whom the program is being prepared (Forest Supervisor and Monument Manager) to envision the completed program and to approve or suggest changes. Major rewriting of the script can be avoided by giving management this early opportunity to make input.

Also, the treatment allows you to see the entire presentation in your mind's eye, which will result in a more organized approach as you begin writing the script.

SCRIPT WRITING

After the treatment is approved, the flow of major sequences can be used to build a complete outline from which to write the script.

The script and visuals need to be planned together. First, mentally formulate the idea you want to communicate, and mentally select a sequence of visuals that illustrate this idea. Then, write a segment of narration, if needed, to supplement or emphasize the visuals.

This job is made easier by using a two column format. The visuals are described in the left column, and the narration and sound are described in the right column adjacent to the corresponding visual sequence.

The script is written to be heard, as opposed to read. Sentences should be short, straight-forward, and easy to understand. Words that are unusual or obscure should be avoided. The general concept and specific details about each topic are presented together in word and visuals.

The script should be reviewed and revised continually until the narration and sound track are completed. The following script, "A Blue Print for the Future," was revised seven times before being recorded.

The review process consisted of mailing the draft of the script to approximately twenty persons knowledgeable about Mount St. Helens. A meeting was scheduled about one week later to review their comments and preview the supporting visuals. The information received was extremely beneficial for fine tuning the program.

MOUNT ST. HELENS NATIONAL VOLCANIC
MONUMENT, "A BLUEPRINT FOR THE FUTURE"

TREATMENT

BACKGROUND: This 20-minute, two-projector lapse dissolve presentation, will be designed for audiences consisting of political and special interest groups that are concerned about the future of the Mount St. Helens National Volcanic Monument. It will explain why the proposed action is essential if the unique features and processes of the area are to be preserved while research and recreation use are allowed to occur.

CONCEPT: "Mount St. Helens, A Blueprint For The Future," will show audiences how beautiful and popular the area was prior to the 1980 eruption, how beautiful and unique the area became as a result of the eruptions, and how the proposed plan allows these new values to be protected while enjoyed by recreationists and used by scientists.

STYLE: Although narration and music will carry much of the show, four interviews with knowledgeable observers will be used to build a feeling for the uniqueness and high values of the area. All graphics (titles, credits, maps, charts, etc.) will be photographed on Kodalith film and progressively dissolved onto appropriate backgrounds. Likewise, the locations of planned developments will be progressively disclosed on oblique photographs of the landscape. The primary program will be on 35mm slides in standard 2 x 2 inch glass mounts with the sound track on a cassette recording tape. The program will be transferred to video tape for showing to smaller groups and easier use by other Forest Service units.

STORY: The story begins with music and images displaying the beauty and popularity of the Spirit Lake area for recreation prior to the 1980 eruption. Chuck Tonn, a Forest Service employee who lived and worked there for 10 years, relates his feelings about this beauty and these recreational values.

Next, dramatic music and visuals build into a display of photos of the eruption, which are used to transition the program to the next segment. Views of some of the most unique features created by the eruption are displayed, and the narrator describes these features and their importance.

The narrator discusses the initial planning and public interest that eventually resulted in the Congressional action that created the National Volcanic Monument. This introduces the plan and the title of the program, "A Blueprint for the Future."

By this time, some of the viewers are probably getting concerned about the safety of visiting an active volcano, and Don Peterson from the U.S. Geological Survey reduces this concern by explaining the volcano monitoring program.

This transitions into a description of the proposed actions which are presented as opportunities to achieve different types of recreation or research experiences. As each proposed management direction or development is described, the supporting rationale for how it relates to meeting the overriding direction in the Act to preserve the natural features and processes is interwoven into the discussion.

The program ends with the audience being asked to consider what this area will be like in the future.

OutlineEstimated Time

1. Pre-1980 value of the area. Photographs and music lead into an interview with a recreation manager. Voice of Chuck Tonn. 1 minute
2. Transition to post-eruption scenes using dramatic music and sound effects while the May 18, 1980, eruption is displayed 1 minute
3. Post-1980 values of the area. Voice of Narrator. 2 minutes
4. Transition to the Comprehensive Management Plan by discussing the early planning and special interest that eventually led to Congressional legislation creating the Monument.
Voice of Narrator 1.5 minutes
5. Describe the key management direction and developments proposed in the plan linking each proposal to the overriding objective of protecting the natural features and processes. Voice of Narrator . . .12 minutes
 - A. Opportunity to monitor volcano
(voice of Don Peterson).
U.S. Geological Survey
Searching for predictability
Flood hazard analysis
 - B. Fullest range of volcano experiences available now.
Road 99
Recreationist Perspective (voice of Jane Wulff)
Bear Meadow to Windy Ridge highest priority
Design standards
Harmony with nature
Architectural theme
Major access corridors
Information stations
 - C. Opportunity to achieve the fullest range of volcano experiences.
Coldwater Ridge/Johnston Ridge
Highway 504
Available after 1991
 - D. Opportunity to experience a lava flow
Ape Cave
Lava Cast
Cave Management Plan

- E. Opportunity to experience a mudflow
 - Muddy River Canyon
 - Lava Canyon
 - Muddy River Viewpoint
 - F. Opportunity for dispersed recreation
 - Trails
 - Mt. Margaret
 - Ridge Trail--high priority
 - Lakes Basin--delay until 1990
 - Backcountry Plan
 - Green River/Vanson Peak
 - Horse use
 - Mount St. Helens
 - Round-the-Mountain Trail
 - Mountain climbing
 - Strawberry Mountain
 - G. Opportunities for winter recreation
 - Sno-park and grooming
 - Cross country ski trails
 - H. Opportunities for research
 - Entire Monument high value
 - Number of research projects
 - Protection of Research Values
 - Most sensitive areas identified and protected
 - (voice of Fred Swanson)
 - Castle Lake, Spirit Lake Basin,
 - Upper Muddy Lahar, and Butte Camp
 - Goat Marsh RNA
 - Monument Scientist
 - Scientific Advisory Board
 - Coordination with Game Department on a Fish and Wildlife Management Plan
 - Fish stocking
6. Close the program
Voice of Narrator 2 minutes
7. Production credits,
music, and visuals. 1 minute

MOUNT ST. HELENS, A BLUEPRINT FOR THE FUTURE

VISUALS	AUDIO
L1 YMCA Camp (B&W)	(Ticking of a clock)
R1 Early day mountain climbing (B&W)	
L2 Campground with old cars(B&W)	(Old time music)
R2 Harry Truman (B & W)	
L3 Patrol boat (B & W)	
R3 Early day interpreter with kids (B&W)	
L4 Mount St. Helens from Harmony Falls (B&W)	(Fade music)(bring up ticking sound)
R4 Same scene (color)	
	(Voice of Chuck Tonn with sound of birds, wind, and lakeshore lapping in the background.) "I first visited the Mount St. Helens/Spirit Lake area in 1961, and fell in love with it immediately. I remember the Mt. Margaret Backcountry with
L5 Chuck Tonn on Mt. Margaret [Burn in: Chuck Tonn USDA, Forest Service]	
R5 View of the mountain from Mt. Margaret	
L6 Craggy peaks	its craggy peaks,
R6 Mountain lake	its crystal clear lakes,
L7 Meadow	and its high alpine meadows with the many wildflowers,
R7 View of the mountain from Mt. Margaret	and the beautiful view from Mt. Margaret with Mount St. Helens in the background.

- L8 Spirit Lake scene Spirit Lake had so much to offer, from the many boating opportunities,
(Pause)
- R8 Campground sign to the campgrounds located on the lake itself.
- L9 Mountain climbing Mount St. Helens was one of the most
- R9 Chuck Tonn on top of mountain popular Cascade climbing peaks, and I feel
- L10 Climbers on top of mountain fortunate that I was one that stood on the
- R10 Kids and interpreter at top.
Spirit Lake
None of us suspected the magnitude of
[Burn in: July 1979] what nature would display here in the
spring of 1980."
- L11 St. Helens eruption
[Burn in: April 2, 1980] (Sounds of clock ticking)
- R11 New hole in summit
[Burn in: April 15, 1980]
- L12 Early eruption
[Burn in: April 20, 1980]
- R12 Scientists measure bulge at timberline
[Burn in: May 10, 1980]
- L13 Bulge
[Burn in: May 17, 1980]
- R13 Seismograph (Ticking stops)
[Burn in: May 18, 1980]
- L14 May 18th eruption (Explosion sound)
[Burn in: 8:32 a.m.]
- R14 May 18th eruption (Explosive rumbling sound)
[Burn in: 8:33 a.m.]

- L15 Ash column (Explosive rumbling sound)
- R15 Ash column (Explosive rumbling sound)
- Narrator (Music from record 21, side B, piece #4)
- L16 View toward the peak--with avalanche in the foreground. On May 18, 1980, an immense rockslide avalanche was triggered by an earthquake.
- R16 Spirit Lake It slid north into Spirit Lake raising
- L17 Toutle River Valley the level 200 feet, slammed against and overtopped Johnston Ridge, and flowed west down the Toutle River covering the valley floor to a depth up to 500 feet.
- with volcano in background
- R17 Coldwater Lake It blocked South Coldwater and Castle Creeks to form new lakes.
- L18 Fan-shaped blast area Removal of the mountain top released a near supersonic lateral blast of hot gases and rock that left a fan-shaped area of barren land and blowdown timber extending 15 miles north and west of the volcano.
- R18 Barren area Virtually everything on the surface, within 8 miles of the mountain, natural or manmade, was obliterated or carried away.
- L19 Blowdown timber Beyond this area, trees were toppled like matchsticks. Dead trees, singed brown, by the hot gases, remained standing

R19 Standing, singed trees

at the outer edge of the blast.

L20 Mushroom column

A strong vertical explosion caused a column of ash and steam to rise over 12 miles into the atmosphere, depositing deep layers of ash and pumice downwind over the landscape.

R20 Deep ash

L21 Mudflow

Hot materials in the landslide, blast, and ashfall, melted snow and ice on the mountain slopes causing massive mudflows to pour down the major river channels like wet concrete, scouring the landscape and destroying everything in their path.

R21 House

(Pause)

(Quad composite build using
slides L22 to R23)

L22 Francisco

Almost before the ash cloud settled, the Gifford Pinchot National Forest

R22 Francisco/Joe

began preparing a land management plan for the area. Because of

L23 Francisco/Joe/Surveyors

extremely high public interest in seeing and learning about what happened

LR23 Francisco/Joe
Surveyors/Emetaz

here, an 80-thousand acre interpretive
area was proposed.

L24 Original plan

(Fade out music)

R24 Conservation group in the
field

Concerned conservation groups, led by the
Mount St. Helens Protective Association,
viewed the area as a natural wonder as
valuable as the most popular National Parks
and Monuments in the Nation. They wanted
Mount St. Helens to be recognized and
protected as a National Monument.

L25 MSH with steam plume

R25 Graphic with Monument logo
and name on above

The Association worked with Congress, and
in August 1982 the President signed an Act
creating a 110-thousand acre National
Monument. This Act required a
Comprehensive Management plan to be written
within three years and include:

L26 Plant

"Measures to preserve the natural geologic

[Burn in: Preserve the geologic and ecologic processes,
and ecologic processes]

(Pause)

R26 Visitors at Windy Ridge

access and developments needed for public
understanding and enjoyment,

[Burn in: Public access and
development]

(Pause)

L27 People on the hill at

Windy Ridge

[Burn in: Maximum levels

of human impact]

and identification of the maximum levels
of human impacts possible without
substantially affecting the natural
processes."

(Pause)

R27 Graphic of the Monument border

(Music with upbeat feeling, record 18, side
B #1.)

L28 View of Spirit Lake/Mount

St. Helens within the

volcano border

[Mask out area outside the

border]

This Plan, completed in 1985, provides "A
Blueprint for the Future."

R28 Super: Program title

(Pause)

[Fade in, A BLUEPRINT for

the FUTURE, Fade out]

R29 Quad within border showing

recreation, research, and

natural processes

[Mask out area outside the

border]

This blueprint provides the framework
needed to balance research and recreation
use with protection of the natural
features and processes, while ensuring
that users are safe from volcanic hazards.

L29 Monitoring from Harrys Ridge

The United States Geological Survey has been monitoring the volcano since 1980, and has provided timely warnings of its activity. Former scientist in charge of the monitoring program, Don Peterson, explains:

R30 Don Peterson

[Burn in: Don Peterson
U.S. Geological Survey]

(Fade out music)

L30 Eruption scene from July 1980

(Voice of Don Peterson, U.S. Geological Survey) "Eruptions here have been among the most studied and photographed in the world. By studying this eruption and those of the past, we hope to gain ideas on what to expect in the future.

R31 Monitoring activity

We have a dedicated group of scientists and technicians studying and monitoring the volcano so that early warning can be given when we see signs that signal an eruption.

L31 U.S.G.S. Technicians

R32 Seismograph at University
of Washington

Some of these signs are:

Increased earthquake activity recorded by seismographs at the University of Washington.

- | | |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| L32 ETM shots to the dome | Swelling of the lava dome as measured from nearby points. |
| R33 Crack in the crater floor | Indications of ground movement within the volcano, such as cracks or wrinkles in the crater floor. |
| L33 Gas collection | Changes in composition of gas collected from fumeroles and in gas emission measured from aircraft. |
| R34 Stream monitoring | We are also monitoring stream flow sediment transport, and erosion rates to determine flood hazards to downstream communities |
| L34 Gauging station at Spirit Lake | from debris-filled rivers, and checking the stability of debris dams. |
| R35 Dredging | The information collected is used by public officials to evaluate the flood hazards, and to determine methods to reduce the flood threat. |
| L35 Peak with plume | Since mid-1980, we've been able to issue warnings in advance for most of the eruptions. |

R36 Laser work

This has enabled many kinds of work to be carried out near the volcano, which is interrupted only at times of increased hazards."

L36 Mudflow, March 1982

(Pause)

(Narrator)

R37 Volcano viewers

Since the reawakening of the mountain, people have come in great numbers from all over the world to see Mount St. Helens.

L37 Lewis & Clark Visitor Center

Within weeks of the May 18th eruption, the Forest Service opened a temporary visitor center near Interstate 5 to provide interpretive information to visitors. A permanent visitor center is being

R38 Artist concept of Silver Lake
Visitor Center

constructed at Silver Lake on State Route 504, one of the primary access routes to the Monument.

L38 Road 99 near Meta Lake

As damaged roads are reopened into or near the Monument, people have shown an eagerness to drive long distances, over

- R39 Tourist traffic and log truck narrow, winding roads crowded with other tourists and logging trucks, to get a glimpse of the volcano and witness for themselves the devastation and plant recovery.
- L39 Norway Pass Trail Jane Wulff of Battle Ground, Washington, shares her feelings about her first visit to this area: "What I've heard is true, you have to see it yourself to sense the magnitude of what's here, and what is happening today. No words or pictures can explain the sheer breadth and scope of the landscape here."
- R40 View from Norway Pass
- L40 Hikers at Meta Lake
- R41 Blowdown trees near Ryan Lake
- (Narrator)
- L41 Road 99 at Meta Lake On the east side of the Monument, Road 99 will continue to provide the most popular viewing experience, and is high priority for upgrading to double lane pavement.
- R42 Donneybrook viewpoint
- L42 Road 23/25 junction Equally high priority is given to improving Road 25, a major north/south access route.
- R43 Information station sign (Yale) Information stations at the north and south ends of this route will be moved to new

L43 Information station sign (Iron Creek) locations near Randle and Cougar, and reconstructed.

R44 Split slide with the document on the right half and two examples of architecture on the left side. The effects of construction, here and throughout the Monument, will be minimized by using special design guidelines.

These include an architectural theme that is a modified Cascadian-style using native stone masonry and heavy timber and colors that blend with the volcanic landscape.

(Pause)

(Start music, record 18, side A #2)

L44 Mount St. Helens from the air More than a mile wide and over 2,000 feet deep, the horseshoe-shaped crater of Mount St. Helens is the most sought after view by both scientists and recreationists.

R45 Toutle River Valley After 1990, when State Highway 504 is reconstructed on the west side of the Monument, visitors will have the

- L45 Johnston Ridge view opportunity to enjoy this view, and look closely at dramatic evidence of all phases
- R46 Oblique of Coldwater Lake/ Johnston Ridge of the 1980 eruption. The highway will end at Coldwater Lake, and a single lane shuttle bus road is planned from there to Johnston Ridge because of the extremely erosive nature of the debris avalanche.
- [Burn in: SR 504 and other features]
- L46 Super: shuttle bus road location on R46
- R47 New oblique of Johnston Ridge A concession operated shuttle bus will transport visitors the final seven miles over this single lane road to an observatory building on top of Johnston Ridge. Here, visitors can watch scientists studying the volcano while Forest Service interpreters explain the eruption.
- [Burn in: observatory and trail location]
- L47 Split slide: USGS monitoring/ Forest Service interpreter
- R48 Quad composite: New trails will provide opportunities to look down onto Spirit Lake, view the tunnel constructed through Harrys ridge, examine damaged logging equipment, and hike into the nearby backcountry.
- Spirit Lake/tunnel equipment/Mt. Margaret

- L48 Coldwater Lake with overview
[Burn in: proposed facilities] Visitors will leave their cars at Coldwater Lake where there will be an information station, picnic area, interpretive trail, and a concessionaire operated restaurant, bus terminal, and gift shop.
- R49 Split slide:
Ape Cave sign/cave entrance On the south side of the mountain, the opportunities to view and enjoy a lava flow will be enhanced when the existing parking area at Ape Cave is moved and enlarged. Visitors will be able to rent lamps and equipment from a concessionaire, and take guided tours or guide themselves through this interesting two-mile long lava tube, longest in the 48 contiguous states.
- L49 Person standing in cave A Cave Management Plan will ensure that sensitive wildlife and fragile geologic features in other caves throughout the lava flow are protected.
- R50 Visitors at Lava Cast Nearby, a new interpretive trail at the Lava Cast Picnic Area will allow visitors to see tree and log casts and to learn how they were formed here about 1900 years ago.

L50 Mudflow

Just a few miles from here they can see the results of, and learn about, a mudflow that formed during the first few minutes of the May 18 eruption. A new trail will allow them to explore a lava canyon that was exposed when the mudflow scoured the vegetation and soil from basalt cliffs.

R51 Lava Canyon Falls

L51 Lava Canyon

R52 Mudflow and boulder

Downstream where Road 25 crosses these mudflows, a 40-ton giant boulder was deposited on the road. This and other examples of the power of this mudflow, will be protected and interpreted.

L52 Hikers on Norway Pass Trail

For those visitors that want to leave the road, there will be 170 miles of trails.

R53 Mt. Margaret Ridge

High priority is given to reconstructing the trail across Mt. Margaret Ridge because of the outstanding viewing opportunities.

L53 Dome

R54 Two people on Mt. Margaret

(Pause 10 seconds for slides and music)

L54 View of Spirit Lake and
mountain

R55 Oblique view

L55 Super: trails on R55

Constructing a trail system into the lake's basin, similar to the pre-eruption system, will be scheduled after 1990 to allow additional time for recovery along sensitive lakeshores, and for the fire

R56 Backcountry lake

hazard to decrease. By then, a Backcountry Management Plan will define a permit system for managing recreation use in harmony with this fragile environment.

(Fade out music)

L56 Oblique of the area

R57 Super: trails on L56

In the Green River and Vanson Peak area, all the trails will be reconstructed to accommodate a combination of horse/hiker use. Trails presently on private land will be located inside the Monument. A loop opportunity will be created by connecting existing trails on Tumwater Mountain and Vanson Peak.

L57 Horse riders

This area, and most other areas of the Monument that were not impacted by the blast, will be opened to horse use. This use will be monitored and regulated to prevent damage to the fragile features and natural processes.

R58 South and east side of the
mountain

[Burn in: trail]

An exciting hiking experience will be provided when a trail is completed at timberline around the mountain.

L58 North side looking into crater

Construction of the portion of this trail in front of the crater will be scheduled only after it is determined to be reasonably safe from volcanic and hydrologic hazards, such as mudflows.

R59 Looking into the crater

Although the crater of the volcano will remain closed because of extremely high risk, mountain climbing will be allowed on the outer slopes. The number of climbers will be regulated by permit to protect the fragile slopes and to maintain a high

L59 Climbers on snow

quality climbing experience. Parking and bivouac areas will be provided below timberline to handle the permitted use.

R60 Climber on ridge with crater
in background

L60 Fire lookout

Located on the northeastern fringe of the blast area, a fire lookout on Strawberry Mountain will provide a broad overview of the new volcanic landscape. While the

R61 View from Strawberry Ridge

lookout building is primarily for maintaining a constant vigil for fire, it will also be used for interpreting the volcanic landscape and fire detection methods to visitors.

L61 Winter aerial

Winter use of the Monument will be enhanced by maintaining access and parking in three locations.

R62 Split slide:

Sno-park/snow removal

Highway 504 and a portion of the parking area at Coldwater Lake will be open all year. Sno-park areas will be maintained near Marble Mountain on Road 83 and near the junction of Roads 25 and 99.

L62 Split slide:

Skier/snowmobile

A network of roads will be snowgroomed as snowtrails, and special trails will be provided for cross-country skiing. Use will be monitored and regulated to minimize conflicts and protect natural processes.

R63 Fred Swanson with shovel

Opportunities for research are tremendous. Over 500 scientists are leading more than 400 separate studies. Fred Swanson, a geologist with the Forest Service, explains the plan for protecting these research values.

(Swanson)

L63 Closeup of Fred

[Burn in: Fred Swanson
USDA Forest Service]

"Studies of volcanology and ecology at Mount St. Helens are teaching us lessons of great importance for this region, and really at an international scale.

R64 Researchers near the
Toutle River

L64 Interpreter

The unique research values found throughout the Monument are protected by locating roads and trails away from the sensitive features, and by describing the value of these features to the visitors,

R65 Visitor with camera at
Norway Pass

who should be motivated to take home only pictures and to leave nothing behind.

L65 Quad composite:

Debris avalanche, Spirit Lake
Basin, Upper Muddy Fan, and
Butte Camp

The most sensitive features have been identified and are given special protection. These are the Debris Avalanche, the Spirit Lake Basin, the Upper Muddy Fan, and the area around Butte Camp. The safety of visitors and protection of natural features will be accomplished by carefully managing access to these areas.

R66 Fireweed

The introduction of non-native seed is controlled by restricting horse use, and by using only native plants to revegetate roadsides and other areas of disturbed soil.

L66 Goat Marsh

The unique ecosystem at Goat Marsh will continue to be managed as a Research Natural Area. Additional protection is provided by closing the sensitive area around the marsh to camping and restricting horses and over-the-snow vehicles."

(Narrator)

R67 Fire in trees

In certain areas of the Monument, naturally occurring fires may be allowed to burn,

under the proper environmental conditions, to allow fire to play a natural role in plant succession. Fire fighting methods that have the least impact on the landscape will be used.

L67 Fire fighter lighting backfire

R60 Mary Walter at lake

Research and recreation uses will be closely monitored by a scientist assigned to the Monument. Actions will be taken, if necessary, to keep these uses in harmony with the natural processes.

L68 SAB Members on a field trip

A Scientific Advisory Board, set up by the Act, gives advice and makes recommendations on measures needed to protect and manage the natural and scientific values of the Monument. In 1983, as a result of this Board's recommendation, the Forest Service

R69 Lower Venus Lake

and Washington State Department of Game agreed to a five year moratorium on fish

L69 Aerial of lake

stocking and fish passage construction until research values of the many lakes and streams could be evaluated. The Forest

R70 Forest Service and State

and Department of Game are cooperatively developing a Fish and Wildlife Management Plan that will make recommendations on

biologists looking at stream

L70 Split slide:

Fishing/hunting

fish stocking. It will also recommend creative approaches for allowing high quality hunting and fishing to continue in harmony with research in these sensitive areas.

(Music with renewed hope.)

R71 Shot of Mount St. Helens from
Mt. Margaret (1980)

Many changes have taken place here since the 1980 eruption, and changes will

L71 Same view (1985)

continue to occur on this landscape in

R72 Super: book over same view

transition. With this blueprint, we are on

R72 Person on trail

the threshold of a new era, a time when those curious can step closer, safely and with the knowledge that the area is protected for future use and study. They

R73 Visitors at Norway Pass

will be able to look into this window of time and ponder --

L73 Mount St. Helens from Bear Cove
(Before eruption)

What was,

R74 Mount St. Helens from Bear Cove
(After eruption)

What is,

L74 Volcano and lake in Japan
(that look amazingly like
Mount St. Helens)

and What could be.

[Burn in: Bandai-san, Japan,
last eruption 1888]

(Continue music through credits.)

R75 Mount St. Helens and crater

L75 Mount St. Helens from Mt. Margaret
Ridge

R76 Naturalist and little girl at
Meta Lake

L76 Naturalist at Windy Ridge

R77 Mountain and plume

L77 Mountain with glowing dome
(hold on the screen while
credits overlay)

R78 Super: Credit #1

R79 Super: Credit #2

R80 Super: Credit #3

Fade out L77

VISUALS

As the script was being written, the search for existing photography was underway. Fortunately, Mount St. Helens has been one of the biggest photographic attractions in the Nation, both before and after the eruption, and many of the visuals needed already existed. The primary sources searched were: the photo files at the U.S. Geological Survey's Cascade Volcano Observatory in Vancouver; the U.S. Army's Corps of Engineers, Portland District office; and the Monument, the Forest, and the Regional Forest Service headquarters.

Sometimes the best photographs are copyrighted. Photos out of a book, off of a post card, or a purchased slide should be checked for copyrights. Sometimes the person holding the copyright may allow free use for the Government once it is explained that there is no charge, and that they will receive credit for the photograph.

The time of year (late fall and winter) did not permit much opportunity for new photography. Most of the new photography centered around the graphics.

A decision was made to have all of the graphics done on Kodalith film. This is a high contrast black and white negative film, and any graphic that is black on the artwork will appear as white on the screen.

Since the audience must see and interpret these graphics in just a few seconds, they must be simple and very legible. The most basic rule is words or artwork on the screen must be large enough to be read by the people in the last row. The style of lettering and the weight and size of the type are important considerations in meeting this objective.

All of the artwork should be prepared on the same size board. This will make it easier when shooting the slides because the camera will not have to be refocused between each piece of artwork being shot.

A good copy stand and photo lights are all that's needed to produce high-quality graphics that are in good registration. On several slides where it was critical that the registration be extremely accurate, the artwork was taken to a custom photo lab. (The road and trail burn ins on the obliques of the landscape and the title scene within the special volcano border required this precision).

Most of the burn ins were double exposed directly onto the slide of the scene. This was done on a standard slide duplicator (Durst Chroma-Pro). Others were superimposed by projecting both the scene and the graphic at the same time. This created an interesting special effect of the graphic dissolving in and out of the picture.

On several occasions, two slides were sandwiched together in the same slide holder to create a special effect. (The copy of the plan faded onto the volcanic landscape because a Kodalith mask was sandwiched with the scene.)

SOUND

The importance of sound to an audiovisual program and to meeting the communication objective is difficult to express. Without sound to provide the words from the script and interviewed experts, the visuals, no matter how well done and attractive, would have difficulty getting the message across. Music is also an effective form of communication. It can be used to influence a listener's mood, bridge the gap from one scene to the next, hold attention, feature a particular segment, introduce the show, and provide background for titles and closing credits. Sound effects can create a you-are-there feeling and add believability to the message.

Sound recording is a specialized field requiring considerable study and on-the-job experience to master. A quality job requires specialized equipment, and it is best to find a sound studio. The narration for a 20 minute slide program can usually be accomplished in less than an hour. Currently, in the Portland, Oregon, area, a good sound studio can be rented for about \$50.00 per hour.

Some people were either born with, or have developed through training and practice, a voice that sounds better than others. Unless you're one of these fortunate few, you should find someone who has this talent to do your narration. Sometimes you can find a friend with this skill to narrate the script, but in most cases, you will need to hire a professional. The cost to hire the professional narrator for this program was \$150. Professionals are worth their fee since they can learn and read faster, and can "breathe life" into the script.

The manager of the sound studio will probably have a list of narrators and can help in selecting the right voice. The local union for recording artists can supply a list of announcers. Most announcers can supply a sample voice tape, or will attend an audition. The most important criteria is to find a voice that fits the material.

A clean, double-spaced typed copy of the script should be given to the narrator in advance of the recording session. This will avoid study and practice time at the studio which will save you expensive rental time. Indicate pauses that are necessary in the delivery so that the visuals will have the proper display time on the screen, and make the page breaks coincide with natural breaks in the narration. This makes the script easier to read and decreases the possibility of noise from turning pages.

The interviews will probably have to be recorded on location with portable equipment. A good reel-to-reel recorder should be used since most cassette recorders operate at slower speed (1 7/8 inches per second), and result in loss of sound quality when transferred to the fast speed (7 1/2 ips to 15 ips) reel-to-reel recorders at the studio.

When recording on location, look around for obvious sources of unwanted sound and eliminate them. For example, unplug telephones, put a sign on the door warning of recording in progress, and move to a new location if all noise cannot be eliminated. The microphone should be high quality and supported on a stand.

The interview should be controlled by you. In the case of this program, a script was written for each interview, and followed very closely. The interviews should be taped several times. The sound editor should be instructed as to the preferred take of the interview. The editor will remove all the goofs and make adjustments such as opening up or tightening space between paragraphs, sentences, or even words.

If the voice narration is to have musical accompaniment and sound effects, an audio mix is required. The voice, music, and sound effects are each recorded on separate tracks and then dubbed together onto the single track of another tape for playback on a cassette player. A 20 minute program will take approximately three hours of mixing time at the studio at a cost of about \$50.00 per hour.

Most music is copyrighted and the best way to avoid problems from possible infringement of the copyright laws is to select the music from a library that is cleared for public use. Most sound studios have such a library and they will help in selecting the right music for the occasion. The music is usually paid for by the number of "needle drops" you made while recording the music for the sound track.

PROGRAMMING

Programming is the synchronizing of the visuals with the audio. It includes putting the audio onto one track of a cassette recording tape and putting cues on the other track to operate the dissolve unit, (programmer). This allows the program to be presented by pushing one button on the cassette recorder.

Today's programming equipment allows you to create audiovisual effects such as slow dissolves, cuts, supers, and fade outs that can strengthen the message. These effects, when planned properly, can create an emotional response within the audience. The right effects will draw the audience into the visuals, obtain greater attention, trigger memories that lay over the sequence, and strengthen the meaning of the message. Programming should begin when planning the visuals and writing the script so that maximum reinforcement of the communication objective will occur.

Programming equipment ranges from a simple cassette recorder that operates a single projector to computers that operate many projectors. The author recommends using at least two projectors and a variable-rate dissolve programmer to achieve a constant-illumination presentation and the effects discussed above.

Avoid using more than two projectors unless the presentation is at a fixed location such as a visitor center or exposition. The special effects that can be achieved with two projectors will be adequate for creating the special effects needed to strengthen the message, and will be more cost effective for a traveling show. The equipment required will remain portable and easy to set up.

There is a wide variety of programmers on the market, and needs and budget must be examined closely before making a purchase. The most basic variable-rate dissolve programmer can be purchased for as low as \$126, (Entre model No 7605 by Electronic System, Inc.). This presentation was programmed on an FX-2 by Audio Visual Laboratories, Inc., (approximately \$360).

A cassette recorder with a built-in slide synchronizing capability is needed for recording and playing back the program. The audio program is recorded on one track and the second track is used to record the sync-pulse signal from the programmer. The new Sharp 670AV recorder with

10 watts of power is at the low end of the price range, (\$170). The Recordex (formerly Wollensack) Model No. 2851 AV, (\$480) is a heavier duty recorder with a good history of low maintenance cost, and is worth the extra initial investment for heavy use situations.

DISTRIBUTION

One of the primary benefits of a synchronized cassette/slide presentation is that it can be easily and inexpensively reproduced once the master program has been finalized. The same precise message can be told anywhere with minimal expense and difficulty.

As previously mentioned, the program, "A Blueprint for the Future", was intended for showing to the many special interest groups in the four-county area around the Monument, and to general audiences at the visitor center. Four copies of the slide program were made and have been distributed around the Gifford Pinchot National Forest as follows: one copy each to the Monument Headquarters, Visitor Center, Forest Public Affairs Officer, and the author. Requests for showing of the program will be delegated to the personnel at the nearest location.

The program was also transferred to video tape to provide a more portable format for small audiences. Copies were distributed to the same locations on the Gifford Pinchot National Forest, plus one copy each to the Region six, Director of Recreation, and the short course Director, Clemson University.

Demand for the program will be self-perpetuating with new requests resulting from each showing. An estimated 1000 people from special interest groups, and 50,000 from general audiences at the Visitor Center will be shown the program during the next two years.

A list of scheduled presentations with those completed to date is displayed in the Appendix.

COST

1. Production Cost

The production costs for the program "A Blue Print for the Future" are broken down into each individual step as follows:

- a. Script Writing - This task took 12 days to accomplish over a six week period, and included researching the materials, writing the script, describing the visuals, reviewing for accuracy, editing, and numerous rewrites.

Author, 12 days at \$125/day = \$1500

- b. Graphics - The script writer and producer identified titles, credits, drawings and other graphic needs, and ordered them from a graphic artist.

Graphic artist, 2 days at \$80/day = \$160.

- c. Photography - A visual information specialist, Tom Iraci, from the Mount Hood National Forest was detailed to assist with the photography and programming. Tom gave advice on the special effects photography, shot most of the new photographs, and assisted the author in locating existing photography.

Processing	\$ 42.68
Duplicating	37.42
Special effects slides	143.70
Iraci, 6 days at \$100/day	<u>600.00</u>
	\$823.80

- d. Sound Production - Tom Iraci assisted with recording the field interviews on a reel-to-reel recorder, selecting a narrator, and arranging for a sound studio. This included soliciting bids from 3 studios and selecting the most reasonable one.

The narration and interviews were edited by an engineer at the studio. The voices were all mixed onto one track, while the music and sound effects were recorded on separate tracks. These were all mixed together onto a single track of a cassette tape. This required close coordination with the sound engineer to allow the necessary time to display the visuals.

The music cost included assistance from the studio sound engineer in selecting the music, and purchasing the rights to use the music selected.

Narrator	\$150
Studio rental, editing, music	411.
Iraci, 2 days at \$100	<u>200</u>
	\$761.

- e. Programming - This included synchronizing the slides with the sound track on a programmer. Tom Iraci synchronized the program on the Audio Visual Laboratories FX-2, and the author synchronized three copies on the Entre.

Iraci, 1 day at \$100	\$100
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- f. Production Coordination - The producer does the planning of the various steps of the project, and coordinates the accomplishing of these steps. This usually includes developing the schedules (critical path), defining the audience, setting the presentation requirements, and developing the treatment. The producer also coordinates the narrator, sound editor, interviewees, photographer, and graphic artist to assure efficient utilization of their time.

Producer, 6 days at \$125	\$750
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Summary of Production Cost

Script Writing	\$1,500
Graphics	160
Photography	823
Sound Production	761
Programming	100
Production Coordination	<u>750</u>
Total Production Cost	\$4,094

2. Distribution Cost

This cost includes duplicating four sets of the slide program and cassette tapes, transferring to video tape, and making duplicates video tapes.

Duplicate Cassette Tapes	\$ 12
Duplicate Slides	174
Carousel Trays, Model 2	48
Video Transfer 20 minute program	150
Duplicate Video Tapes 3/4 inch (2 ea.)	65
Duplicate Video Tapes 1/2 inch (4 ea.)	<u>60</u>
Total Distribution Cost	\$509

CONCLUSIONS AND RECOMMENDATIONS

Although it is not possible at this time to determine if the primary objective of acquiring funding for fully implementing the plan will be met, the audience reaction and response to the program "A Blue Print for the Future" indicates enthusiasm and support for the plan. The two projector lapse dissolve program has proven to be an effective method of communicating management objectives. The special effects draw the audience deeper into the program and result in greater retention of the message.

The following recommendations are made so that others who decide to use audiovisual techniques to present management objectives may benefit from what was learned during the production of "A Blue Print for the Future".

1. Make a written plan that includes scheduled opportunities for review by your client early in the production process. This will greatly increase the probability of a successful program and a happy client.
2. Analyze your intended audience and plan the program based on their education and knowledge of the subject.
3. Write a clear and concise statement of objectives.

4. Use interviews with experts and eyewitnesses to add credibility to the information. Closely supervise each interview and write a script for the interview, if necessary.
5. Use two projectors synchronized with a simple programmer to take advantage of the special effects.
6. Use a two column format to plan the visuals, and possible programming, as the script is being written.
7. Rent a sound studio and use a professional narrator and editor to ensure a high-quality sound tract.
8. Use music and sound effects to provide the right mood, but plan to purchase the copyrights.

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APPENDIX

CONSULTATIONS:U.S. Department of Interior, U.S. Geological Survey

David A. Johnston Cascades Volcano Observatory, Vancouver, WA.
 Don Peterson (Interview, Visuals, and Script Review)
 Steve Brantley (Visuals and Script)
 Lyn Topinka (Visuals and Script)

U.S. Department of the Army, Corps of Engineers, Portland, OR.

Steve R. Smith, Photo Foreman (Visuals and Transfer to Video)

Battle Ground Chamber of Commerce

Jane Wulff, Manager (Interview)

U.S.D.A. Forest ServiceGifford Pinchot National Forest

Mount St. Helens National Volcanic Monument
 Ken Johnson, Monument Manager (Script)
 Roland Emetaz, Recreation Assistant (Visuals and Script)
 Francisco Valenzuela, Recreation Planner (Visuals and Script)
 Jim Gale, Interpreter (Visuals and Script)
 Chuck Tonn, Visitor Center Director, (Interview and Visuals)

Forest Headquarters

Ed Osmond, Recreation/Watershed Staff Officer (Treatment and Script)
 Gary Handschug, Visual Information Specialist (Graphics)
 Jim Hutchins, Planner (Script)
 Thom Corcoran, Public Affairs Officer (Audiovisual Equipment)
 Diane Sommervold, Office Services (Word Processing)

Regional Headquarters R-6

Joe Higgins, Recreation (Script Review)
 Jim Pollock, Interpretive Specialist (Script Review)
 Jim Hughes, Audiovisual Specialist (Visuals)

PNW Experiment Station

Forestry Sciences Laboratory, Corvallis, OR.
 Fred Swanson, Geologist (Interview and Script)
 Joseph A. Means, Research Forester (Script)

Mount Hood National Forest

Tom Iraci, Visual Information Specialist (Visual Synchronization)

Mount St. Helens Protective Association

Susan Saul (Information and Treatment)

NW Studio, Portland, OR

Bob Lindahl (Sound Engineer)

Earth Images, Bainbridge Island, WA.

Terry Domico (Check on Photo Copyrights, Rosenquist Photos)

Individuals

Mike Stroufe, Cannon Beach, OR. (Narration)
 Muriel Hash, Castle Rock, WA (Check on photo copyrights)

REFERENCES:

- Kenny, Michael F. and Schmitt, Raymond F., 1979. "Images, Images, Images The Book of Programmed Multi-image Production," Eastman Kodak Company.
- Franklin, Jerry F., MacMahon, James A., Swanson, Fred J., and Sedell, James R., 1985. "Ecosystem Responses to the Eruption of Mount St. Helens" National Geographic Reprint, Spring 1985.
- Eastman Kodak Company, 1984. "How to be a Knockout with AVI" Kodak Publication No. 5-31.
- U.S.D.A., Forest Service, 1985. "Final Environmental Impact Statement for the Comprehensive Management Plan for the Mount St. Helens National Volcanic Monument" Gifford Pinchot National Forest, Vancouver, WA.
- Friends of the Gorge, 1979. "Columbia Gorge, Who is Watching" A Slide Program by Friends of the Gorge, Portland, OR.
- Eastman Kodak Company, 1979. "Speechmaking, More Than Words Alone," Kodak Publication No. 5-25.
- U.S.D.I., Geological Survey, "Eruptions of Mount St. Helens: Past, Present, and Future" by Robert I. Tilling.
- Wollensak 3M Company, 1980. "Cassette/Slide Program Production," a guide to effective training, promotion, and education. Publication No. RM-CSPPM-80.

EQUIPMENT

Projectors - Kodak Ektagraphic slide projectors are the standard for working in this medium for the following reasons:

1. They have accurate repeatable horizontal and vertical slide registration. This feature is particularly important in multi-image dissolve presentations where slide-to-slide registration must be precise.
2. They have a dark screen shutter which interrupts the light beam from the projection lamp when the gate of the projector is empty (no slide). This eliminates the need for opaque slides in the program to prevent an annoying bright white screen.
3. Some models, such as the AF-1, AF-2, AF-3, and the new AT are equipped with autofocus which can be turned on and off. This is a benefit when using more than one projector as hand focusing would be difficult.
4. They have a resistor and a capacitor to control electromagnetic interference. This reduces projector generated interference with the audio tape player and programmer which sometimes causes audio popping and unwanted slide changes.

5. The new Ektagraphic III has an easy to reach projector bulb located in the rear of the projector. The bulb can be changed while the projector is mounted on a stacker without changing the alignment of the projector.

Slide Trays - Kodak Ektagraphic Universal Slide Trays, Model 2, capable of holding up to 80 slides, should be used. The black plastic minimizes stray projector light, and the larger slots for the slides decrease the risk of slide hang-ups.

LIST OF COMPLETED AND SCHEDULED PRESENTATIONS

<u>Scheduled Date</u>	<u>Occasion or Group</u>	<u>Attendance</u>
1/28/86	Gifford Pinchot National Forest, Family Meetings	110
2/4/86	Gifford Pinchot National Forest, Family Meetings	15
2/12/86	Regional Office, Recreation Group	16
2/19/86	Forest Management Team	20
2/20/86	Deputy & Associate Chief/Mt. Hood/GP Review	22
2/21/86	Mount St. Helens National Volcanic Monument	70
2/25/86	American Society of Landscape Architects	65
2/27/86	East Vancouver, Rotary Club	30
3/6/86	Battleground High School, Teachers Workshop	21
3/11/86	Washington Office, Recreation Group	12
3/17/86	Wind River Ranger District	12
3/20/86	Battleground Kiwanis Club	45
3/25/86	Mount St. Helens Hiking Club	90
3/26/86	Mt. Adams Ranger District	75
3/26/86	Bureau of Land Management	75
4/2/86	Technical Assoc. of Pulp and Paper, Inc.	95
4/15/86	Scientific Advisory Board	22
4/16/86	Vancouver Rotary	105
4/17/86	G.P. Forest Retirees	20
4/17/86	Regional Landscape Architects Meeting	25
4/17/86	Congressman Vento and Aids	12
4/23/86	Washington State Grange	40
4/29/86	Clemson Review	4

LIST OF COMPLETED AND SCHEDULED PRESENTATIONS

Continued

Scheduled

<u>Date</u>	<u>Occasion or Group</u>	<u>Attendance</u>
4/30/86	Mt. Hood National Forest Management Team	20
5/1/86	Battle Ground Chamber of Commerce	35
5/5/86	Gifford Pinchot Forest Recreation Conference	30
5/6/86	Don Knowles, Senate Appropriations Committee	6
5/15/86	Clark County Saddle Club	30
5/16/86	Mount St. Helens Film Festival	30
5/29/86	Randle Unincorporated	16

GLOSSARY

Burn In -- An effect which can be accomplished in-camera or on the screen where white lettering can be "burned in" to a darker image area. The technique is accomplished in-camera by photographing the scene (or duplicating another transparency) and double exposing a type slide made with high-contrast film so the letters fall in a dark area. For a burn on-screen, one projector presents an image while a second projector "burns in" white type into an area of the image.

Chop -- A chop is similar to a cut in that as one projector lamp goes down, another comes up. With a chop, however, the down-going projector begins advancing or the shutter closes before the lamps (or slides) change, allowing the shutter of that projector to "chop" off the light. This causes a harder visual effect than does the standard cut. A chop may also be called a "hard cut" or "fast cut."

Constant-Illumination Presentations -- Presentations where the screen is never dark from beginning to end. Changing scenes through the use of dissolves, cuts, chops, wipes, etc., eliminates the problem of a dark screen during slide changes.

Cut -- An instantaneous switch from one projector to another. As one projection lamp cuts on, the other cuts off. (So named because it approximates a motion picture cut--an instantaneous transition from one shot to another.)

Dissolve -- An effect in which one scene gradually fades out as a second scene fades in. The dissolve effect is usually achieved by varying the intensity of the projection lamps in the two projectors involved. The time period necessary to complete the dissolve effect is called the dissolve rate. The dissolve effect is sometimes called a lap dissolve.

Dissolve Bank -- Two or more slide projectors (generally aimed at the same screen area) controlled by a single dissolve-control unit.

Fade -- A gradual increase or decrease in projection-lamp intensity as in fade-in (image slowly comes up on dark screen) and fade-out (image slowly does down, leaving screen black).

Real-Time Programming -- Programming visual effects directly onto the audiotape in the exact time frame (relative to the sound track) at which they must be repeated.

Sandwiching -- Placing more than one piece of slide film in the same slide mount to create a desired effect. (Used to mask a portion of the image; to lay down dark type in a light area of the image; to create double-exposure effects, etc.)

Slide Registration -- Certain visual effects depend on accurate registration of the images for their impact. Care must be taken in creating the images (whether from artwork or live photography), mounting

the slides, and aligning the projectors to ensure that the effect optimized. The image may appear to "jump" when registration is not properly maintained.

Super -- Abbreviation for superimposition. The placing of one image over another so that both may be seen simultaneously. The effect can be achieved in many ways: by more than one exposure on a piece of film in a camera; by glass shots; by double or multiple printing, etc.